

### STATE BOARD OF OPTOMETRY

2450 DEL PASO ROAD, SUITE 105, SACRAMENTO, CA 95834 P (916) 575-7170 F (916) 575-7292 www.optometry .ca.gov



# Continuing Education Course Approval Checklist

Title:		
Provider Name:		
<ul><li>☑ Completed Application</li><li>Open to all Optometrists?</li><li>☑ Yes</li><li>☑ No</li><li>Maintain Record Agreement?</li><li>☑ Yes</li><li>☑ No</li></ul>		
☑ Correct Application Fee		
☑ Detailed Course Summary		
□ Detailed Course Outline		
□ PowerPoint and/or other Presentation Materials		
□Advertising (optional)		
□CV for EACH Course Instructor		
□ License Verification for Each Course Instructor Disciplinary History? □ Yes □ No		



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## CONTINUING EDUCATION COURSE APPROVAL **APPLICATION**

# \$50 Mandatory

Pursuant to California Code of Regulations (CCR) § 1536, the Board will approve continuing education (CE) courses after receiving the applicable fee, the requested information below and it has been determined that the course meets criteria specified in CCR § 1536(g).

In addition to the information requested below, please attach a copy of the course schedule and topical outline of the subject matter. Applications must be submitted 45 days prior to the course presentation date.

Please type or print clearly.			
Please type or print clearly.  Course Title Haste of The Stands Etl	Course Presentation Date		
	8:00 Am - 4:30 PM		
Do you see what I see?	04/30/2017		
Course Provider Contact Information			
Provider Name Coastal Vision Welical Group			
Gina Valdemar (Middle)			
(Final) (Middle)			
Provider Mailing Address			
Street 394 S-Main St. # 100 Ovange State CA Zip 92890			
Provider Email Address ging Valdemar @ Coastal-Vision & com			
Will the proposed course be open to all California licensed optometrists?		YES DNO	
Do you agree to maintain and furnish to the Board and/or attending licensee such records of course content and attendance as the Board requires, for a period of at least three years from the date of course presentation?		XYES □ NO	
Course Instructor Information			
Please provide the information below and attach the curriculum vitae for each instructor or lecturer involved in the course. If there are more instructors in the course, please provide the requested information on a separate sheet of paper.			
Instructor Name			
Madhue Agarwal			
(First) (Last) (Middle)			
License Number 73978 License Type MD			
Phone Number (14) 146 9679 Email Address 9 INA Valdemar C. COASTAL VISION .com			
I declare under penalty of perjury under the laws of the State of California that all the information submitted on this form and on any accompanying attachments submitted is true and correct.			
1) 17 - 17 - 17			
Signature of Course Provider Date			
9	Salt	Form CE 01 Day 2116	



March 23, 2017

State Board of Optometry 2450 Del Paso Road, Ste. 105 Sacramento, CA 95834

RE: Late submission of CE course approval-Taste of the Islands 8 Hour CE-April 30, 2017: Five Retinal Diagnoses You Don't Want to Miss; Cataract Surgery in Patients with Corneal Pathology; Buried Treasure: Connecting the Dots to Treating Binocular Misalignment; Patient-reported Outcomes with Lasik: Interpreting the PROWL study; What We Know about Topography Guided Refractive Surgery: Case Studies in Clinical Practice; Do You See What I See?; Crosslinking for Corneal Ectasia: The Evolution of Sclera Lenses; Blink and You'll Miss It: Dry Eye in the Cosmetic Patient; Is the Symfony Toric Lens the Answer for Every Eye Condition; Should My Glaucoma Patient with a Cataract have a MIGS Surgery; Vitreous: Friend or Foe; Is it Cancer? The Optometrist Role in the Diagnosis and Management of Periocular Skin Cancer; Oral Presentations of Systemic Disease: Case Presentations; Glaucoma Management: What Should I do Next?

Dear Practice and Education committee,

I am writing this letter in regards to late submission for the multi-course symposium titled "Taste of the Islands CE" scheduled for presentation on 04/30/2017. We are short of the 45 day submission request, and wanted to include a letter for late submission with our CE approval application.

We continue to work diligently to get all required items to the board needed for CE approval in a timely manner. Due to multiple speakers at the upcoming CE, we had difficulty obtaining all the lectures to meet the submission requirement timeline and would appreciation your consideration of our continuing education approval request.

Please feel free to reach out to us with any other questions. We look forward to continued relations with the State Board of Optometry and the practice and education committee.

Sincerely

Gina Valdemar

Affiliate Relations and Education Director

Coastal Vision Medical Group

ginavaldemar@coastal-vision.com



Taste of the Islands 8 hour CE (6 of 15 lectures)

Course Title: Do You See What I See?

Course Presentation date: 4/30/17

Speaker: Madhu Agarwal, MD

Target Audience: This lecture is intended for optometrist seeking continuing

education

This lecture provides the attendee with case studies in neuro-opthalmology; the course information shared seeks to help the attendee think "outside the box" when doing ocular examinations and evaluating patients symptoms.

CE Credit: .50 CE Units

#### 1 Do You See What I See?

Madhu R. Agarwal, M.D.

NEURO-OPHTHALMOLOGY, OCULOPLASTICS, AND STRABISMUS

NEWPORT BEACH

### 2 Ground Rules

- · Check pupils yourself!!
- cricck pupils yourser
- Only "half-listen" to what another doc may tell you about a patient! This can taint your judgement.
- Trust no one!!
- •
- •
- •
- •
- •
- .

### 3 CASE

- 79 year-old Latino male referred by comprehensive ophthalmologist with a note,
   " aponeurotic ptosis OD >OS and right lower lid entropion."
- · Patient feels worsening ptosis and has a known history of elevated BP
- 4
- 5
- Right pupil 6mm, Left pupil 3mm
- Levator function 5mm OD, 15 mm OS
- EOM: Very limited supraduction with mild limitation of adduction
- 6

### 7 Aneurysm!

- This patient decided not to undergo any interventional procedures. (Ptosis and superior rectus surgery was successfully performed)
- Interventional coiling or neurosurgical clipping is usually standard.

### 8 CN III palsy

- Oculomotor Nerve
  - Medial Rectus

- Inferior Rectus
- Superior Rectus
- Inferior Oblique
- Levator Muscle
- Pupil

### 9 Work-up

- Rule out other neurological signs
- •
- If isolated, Pupil involvement?
- •
- If yes, think compression of the nerve and obtain emergent imaging
- •

### 10 Work-Up

- Imaging of partial CN III palsies
- •
- Remember myasthenia gravis
- •
- Viral common in children

### 11 Treatment

- In this case, observation
- •
- If aneurysm, often clip or coil
- .
- If normal pupil and complete with ischemic risk factors, observe
- .
- If anything funny, image!

### 12 CASE

- 52 year-old African-American female here for blepharoplasty evaluation.
- PMH: Breast cancer s/p mastectomy
- •
- No medications
- 13
- Va 20/20 OU
- •
- 2 mm pupil OD, 4mm OS
- Dark 3mm OD, 8mm OS
- No APD
- •
- PF: 6 mm OD, 9mm OS

14

15 Lymphedema
16 Chest mass
17
18 Horner's Syndrome
19
Differential Diagnoses of Horner's Syndrome  1st order neuron: Stroke Vertebrobasilar artery insufficiency causing lateral medullary syndrome Multiple sclerosis Syringomyelia
21 2nd order neuron (spinal cord, thoracic cavity, and lower neck)  Severe osteoarthritis of the neck with bony spurs Tumor (Pancoast, thyroid adenoma, neurofibroma, metastasis) Aortic aneurysm Inferior neck trauma
3rd order neuron (upper neck and carotid arterial pathway)  Cluster headache Carotid artery dissection Nasopharyngeal tumors Cavernous sinus mass (or inflammation, ie. Tolosa-Hunt syndrome) Herpes Zoster (HZO) Otitis media Trauma or post-surgical damage Raeder paratrigeminal syndrome
23
24 CASE • 25 year-old Caucasian male referred for worsening ptosis OD x 2 months

```
• Va 20/20 OU
      • Pupils equal, round OU
      • PF 3, 10: previously 6 mm OD
25
      • EOM: Significant ptosis...also Left Hyper!
26
27 He brought in...

    MRI negative

    MRA negative

      · Besides ptosis/diplopia, patient feels great!
28
      • Here is a patient who is young who was told that he may have 3<sup>rd</sup> nerve palsy....
      ... evolving over a few MONTHS!
29
      • If it were inflammatory or viral, he would be better over months, not worse!
      • Ischemic palsy in your 20's??
      · Any other thoughts?
30 I did some tests...

    Acetylcholine receptor antibodies

         • Our Patient: 3.0 with a reference range of <0.1
31 Myasthenia Gravis
      • Autoimmune disorder in which the body makes autoantibodies for the acetylcholine
       receptor
      · Characterized by severe fatigue of muscles
```

4

 Women in 20's and 30's and men over 60 32 CASE • 65 year-old Caucasian female with binocular horizontal diplopia x 1 month referred for new onset painful sixth nerve palsy OS. • Patient had severe orbital ache OS and felt very ill as a result of diplopia • She had already been sent from community to University Radiology for brain imaging for aneurysm 33 • Va 20/25 OU • Ta 18, 21 • Pupils are equal, no APD OU • Ocular adnexa: Poor repositus OS • SLE: OD wnl, OS with severe injection 34 EOM: Inability to abduct the OS 35 MRI reported normal • CT angio was brought in with patient TFTs nl 36 37 **Thyroid Eye Disease**  Orbit, ocular adnexa→ proptosis, optic neuropathy, blindness Eye muscles→ strabismus Eyelid→ eyelid retraction "stare" Lacrimal gland→ dry eye 39 Demographics • Women 5x more likely to have eye disease

· Older patients more severe

• Caucasians most problematic

### 40 Thyroid Function

- 10% euthyroid; some hypothyroid
- · Vast majority Graves' disease
- Exacerbation of eye disease after radioactive iodine

### 41 Other Prognostic Issues

- Smokers
- Diabetes
- Myasthenia gravis → Worse eye dz
- Head/neck radiation

### 42 Eyelid

- 90% pts have some eyelid involvement
- · Lid lag AKA Jerky eyelid movements
- Lagophthalmos → open eyes at night
- Retraction AKA Scary Stare

### 43 Lid Retraction

### 44 Lagophthalmos

## 45 Lid Lag

### 46 Myopathy

- Restrictive Strabismus
- Eye muscle on a leash
- Inferior rectus, Medial rectus most affected
- From ribbons to sausages!

### 47 Strabismus

### 48 Attempt at upgaze

## 49 CT Scan

## 50 Compressive Optic Neuropathy

- Can be very subtle, only one eye
- •
- Watch for orbital pain
- "Blackouts"
- Severe restriction

•

Lose color vision and visual acuity

## 51 Prednisone and Decompress!

52

53

- Remember to watch for loss of visual acuity
- Corneal exposure can also lead to permanent blindness

•

# Do You See What I See?

Madhu R. Agarwal, M.D.

NEURO-OPHTHALMOLOGY, OCULOPLASTICS, AND
STRABISMUS

NEWPORT BEACH



## **Ground Rules**

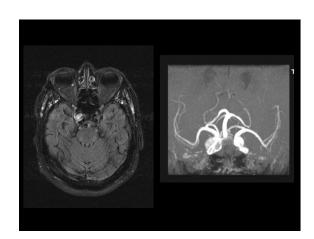
- Check pupils yourself!!
- Only half listen to what another doc may tell you about a patient! This can taint your judgement.
- Trust no one!!

## **CASE**

- 79 year old Latino male referred by comprehensive ophthalmologist with a note, aponeurotic ptosis OD >OS and right lower lid entropion.
- Patient feels worsening ptosis and has a known history of elevated BP



- Right pupil 6mm, Left pupil 3mm
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## Aneurysm!

- This patient decided not to undergo any interventional procedures. (Ptosis and superior rectus surgery was successfully performed)
- Interventional coiling or neurosurgical clipping is usually standard.

## CN III palsy

- Oculomotor Nerve
  - Medial Rectus
  - Inferior Rectus
  - Superior Rectus
  - Inferior Oblique
  - Levator Muscle
  - Pupil

## Work-up

- Rule out other neurological signs
- If isolated, Pupil involvement?
- If yes, think compression of the nerve and obtain emergent imaging

# Work-Up

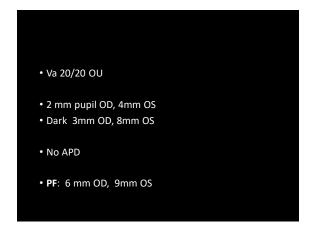
- Imaging of partial CN III palsies
- Remember myasthenia gravis
- Viral common in children

### Treatment

- In this case, observation
- If aneurysm, often clip or coil
- If normal pupil and complete with ischemic risk factors, observe
- If anything funny, image!

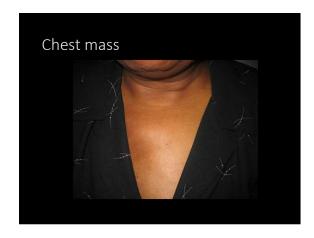
## CASE

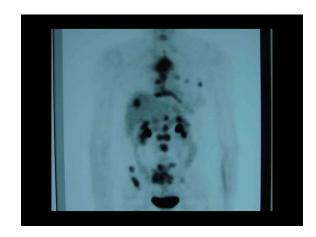
- 52 year old African American female here for blepharoplasty evaluation.
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- No medications

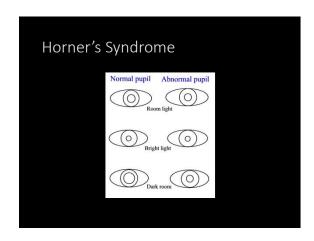


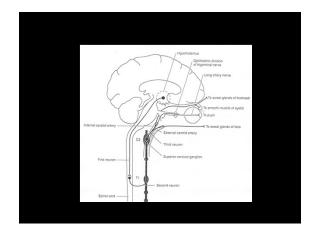












### **Differential Diagnoses of Horner s Syndrome**

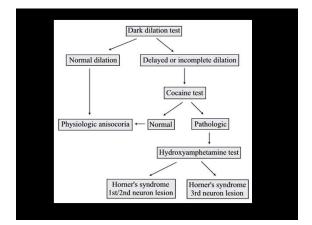
- 1st order neuron:
- Stroke
- Vertebrobasilar artery insufficiency causing lateral medullary syndrome
- Multiple sclerosis
- Syringomyelia

# 2nd order neuron (spinal cord, thoracic cavity, and lower neck)

- Severe osteoarthritis of the neck with bony spurs
- Tumor (Pancoast, thyroid adenoma, neurofibroma, metastasis)
- Aortic aneurysm
- Inferior neck trauma

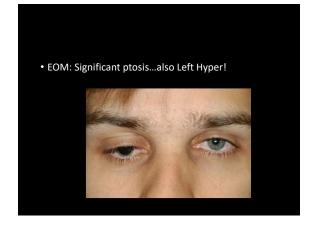
# 3rd order neuron (upper neck and carotid arterial pathway)

- Cluster headache
- Carotid artery dissection
- Nasopharyngeal tumors
- Cavernous sinus mass (or inflammation, ie. Tolosa Hunt syndrome)
- Herpes Zoster (HZO)
- Otitis media
- Trauma or post surgical damage
- Raeder paratrigeminal syndrome



### CASE

- 25 year old Caucasian male referred for worsening ptosis OD x 2 months
- Va 20/20 OU
- Pupils equal, round OU
- PF 3, 10: previously 6 mm OD





# He brought in...

- MRI negative
- MRA negative
- Besides ptosis/diplopia, patient feels great!

- $\bullet$  Here is a patient who is young who was told that he may have  $3^{\rm rd}$  nerve palsy....
- ... evolving over a few MONTHS!

# • If it were inflammatory or viral, he would be better over months, not worse!

- Ischemic palsy in your 20 s??
- Any other thoughts?

# I did some tests...

- Acetylcholine receptor antibodies
  - Our Patient: 3.0 with a reference range of <0.1

## Myasthenia Gravis

- Autoimmune disorder in which the body makes autoantibodies for the acetylcholine receptor
- Characterized by severe fatigue of muscles
- Women in 20 s and 30 s and men over 60

## CASE

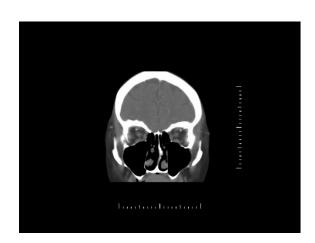
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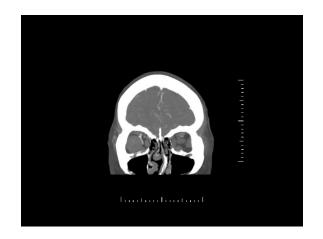
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- Ocular adnexa: Poor repositus OS
- SLE: OD wnl, OS with severe injection

## EOM: Inability to abduct the OS



- MRI reported normal
- CT angio was brought in with patient
- TFTs nl





## Thyroid Eye Disease

- Orbit, ocular adnexa >> proptosis, optic neuropathy, blindness
- Eye muscles → strabismus
- Eyelid → eyelid retraction stare
- Lacrimal gland → dry eye

## Demographics

- Women 5x more likely to have eye disease
- Older patients more severe
- Caucasians most problematic

# Thyroid Function

- 10% euthyroid; some hypothyroid
- Vast majority Graves disease
- Exacerbation of eye disease after radioactive iodine

# Other Prognostic Issues

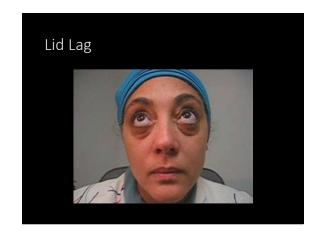
- Smokers
- Diabetes
- Myasthenia gravis
- → Worse eye dz
- Head/neck radiation

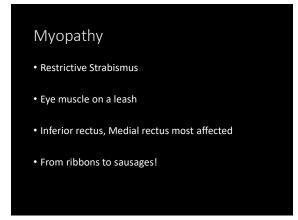
# Eyelid

- 90% pts have some eyelid involvement
- Lid lag AKA Jerky eyelid movements
- Lagophthalmos → open eyes at night
- Retraction AKA Scary Stare

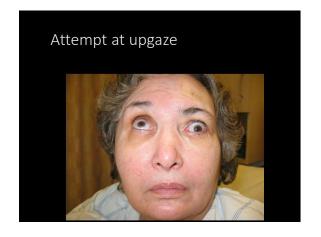














# Compressive Optic Neuropathy

- Can be very subtle, only one eye
- Watch for orbital pain
- Blackouts
- Severe restriction
- Lose color vision and visual acuity





- Remember to watch for loss of visual acuity
- Corneal exposure can also lead to permanent blindness

# **CV** Resume



Curriculum Vitae

Madhu R. Agarwal

# **General Information**

Maiden name: Madhu R. Chopra Birthplace: Los Angeles, California

### **Board Certification:**

American Academy of Ophthalmology

## Languages:

Fluent in Spanish and Hindi

## **Private Practice**

California Orbital Consultants, Redlands

# **Previous Employment**

- "Associate Professor of Ophthalmology, Loma Linda University Department of Ophthalmology
- "Clinical Instructor in Ophthalmology, Doheny Eye Institute, University of Southern California

### **Education**

## Fellowship

"Neuro-ophthalmology and Orbital Surgery (Ophthalmic Plastics/Adult Strabismus) Doheny Eye Institute, University of Southern California Faculty: Alfredo A. Sadun, M.D., Ph.D. and Peter A. Quiros, M.D. (7/2003-7/2004)

## Residency

"Ophthalmology, Doheny Eye Institute, University of Southern California (7/2000-6/2003)

## Internship

"Internal Medicine, University of California, Los Angeles-Olive View Medical Center, (7/1999-6/2000)

## Educaction

- "University of California, Los Angeles School of Medicine (8/1995-5/1999)
- Doctor of Medicine
- "University of California, Los Angeles (9/1992-6/1995) Bachelor of Science in Biochemistry Phi Beta Kappa, Magna cum laude

### **Professional Activities**

- "Scientific Reviewer, Frontiers in Neuro-Ophthalmology (2010- present)
- "Co-Chair, NANOS Symposium at the American Academy of Ophthalmology Meeting, San Francisco (2009)
- "Committee Member, Neuro-ophthalmology Planning Group for the American Academy of Ophthalmology Sub-specialty Meeting (2009-present)
- "Scientific Reviewer, Eye (2008-9)
- "Vice-Chair, Patient Education Committee for North American Neuro-Ophthalmology Society (2008-10)
- Panel Member/Editor, Practicing Ophthalmologists Committee /Recertification Curriculum in Neuro-ophthalmology for the American Academy of Ophthalmology (2009-2014)
- Elected Commissioner, Joint Commission of Allied Health Personnel in Ophthalmology (2007-2012)
- "Committee Member, North American Neuro-ophthalmology Society Committee to the American Academy of Ophthalmology (2006-present

- "Committee Member, LLU Residency Selection Committee (2005, 2006, 2007)
- "Committee Member, LLU School of Medicine Compliance (2005-date)
- "Co-Director of Quality Assurance, LLU Department of Ophthalmology (2005-date)
- "Committee Member, LLU Department of Ophthalmology Marketing (2006-date)
- "Committee Member, LLU Department of Ophthalmology Compensation (2006-2007)
- "Chair, LLU Department of Ophthalmology Resident Research Day (June 2006)
- "Scientific Reviewer, Ophthalmology (2005)

### **Honors**

- " UCLA Medical Alumni Association Award for Distinguished Service
- "UCLA Obstetrics and Gynecology Stipend for the Advancement of Breast Cancer Research
- "American Heart Association Student Research Grant/Award
- " Phi Beta Kappa Honors Society
- "Golden Key National Honors Society
- " Alpha Lambda Delta Honors Society
- " UCLA Faculty Women's Club Scholarship liaison
- "National Merit Scholarship
- " UCLA Dean's Honor List All Quarters

### **Presentations**

- "Double Trouble: A Look at Breast Cancer Metastases in Your Neighborhood." Doheny Eye Institute. Los Angeles, CA. April 10, 2010.
- "Hang in There: Myasthenia Gravis." American Academy of Ophthalmology Meeting, San Francisco, October 24, 2009.
- "Ischemic Optic Neuropathies." Inland Empire Optometric Symposium. Ontario, CA. March 15, 2009.
- "Taking a History in the Evaluation of Optic Atrophy." Doheny Eye Institute at USC. December 13, 2008.
- "" "Eyelid Skin Cancer." California Optometric Association/Optowest. Monterey, CA. November 16, 2008.
- "Neuro-ophthalmology Basics." California Optometric Association/Optowest. Monterey, CA. November 15, 2008.
- ""Understanding MS and Other Neurological Conditions." California Optometric Association/Optowest. Monterey, CA. November 14, 2008.

- "Ptosis: Nuances for the Clinician." Joint Commission for Allied Health Professionals in Ophthalmology National Meeting. New Orleans. November 9, 2008.
- "Giant Cell Arteritis." Joint Commission for Allied Health Professionals in Ophthalmology National Meeting. New Orleans. November 10, 2008.
- "So You Think It's Just Ptosis." Senior Instructor for the American Academy of Ophthalmology Conference. New Orleans, November 10, 2008.
- "Thyroid Eye Disease". Department of Ophthalmology Conference for Optometrists. Loma Linda University. November 4, 2008.
- "Moderator/Speaker. Walsh Meeting at the North American Neuroophthalmology Society Meeting. Orlando, FL. March 9, 2008.
- Review of Neuro-ophthamology and Oculoplastics." Inland Empire Optometry Society. February 22, 2008.
- ""Understanding Diplopia." Doheny Eye Institute at USC. December 8, 2007.
- "Ocular Malingering". Department of Ophthalmology Conference for Optometrists. Loma Linda University. November 4, 2007.
- "" "Ophthalmology and Multiple Sclerosis: Breakfast with the Experts." American Academy of Ophthalmology Conference. New Orleans. November 12, 2007.
- "Thyroid Eye Disease: Nuances for the Clinician." Joint Commission for Allied Health Professionals in Ophthalmology National Meeting. New Orleans. November 9, 2007.
- "So You Think It's Just Ptosis." Senior Instructor for the American Academy of Ophthalmology Conference. New Orleans. November 11, 2007
- ""Challenging Syndromes in Neuro-ophthalmology". C and E Optometry Symposium. Anaheim Marriot. October 29, 2007.
- "" "Ophthalmology and Multiple Sclerosis: Breakfast with the Experts." American Academy of Ophthalmology Conference. Las Vegas, Nevada. November 14, 2006.
- " "Around the World in Neuro-ophthalmology and Oculoplastics." Department of Ophthalmology Conference for Optometrists. Loma Linda University. November 5, 2006.
- "Neuro-ophthalmology Basics." Neuro-ophthalmology Symposium. Anaheim Marriot. October 29, 2006.
- "Posterior Ischemic Optic Neuropathy." Department of Anesthesiology Grand Rounds. Loma Linda University. October 11, 2006.
- "Trigeminal Neuralgia." Doheny Eye Institute's Ophthalmic Pain Symposium. September 9, 2006.
- "Thyroid Eye Disease." Department of Medicine Grand Rounds. Loma Linda University. August 6, 2006.
- " "Oculoplastics for the Beginning Ophthalmology Resident." Department of

- Ophthalmology Grand Rounds. Loma Linda University. July 20, 2006.
- "Neuro-ophthalmology and Oculoplastics." Inland Empire Ophthalmic Technician Meeting. July 12, 2006.
- " "Cita Con Su Medico." Spanish Radio Show about Ophthalmology. June 25, 2006.
- "Eyelid Reconstruction." Department of Dermatology Grand Rounds. Loma Linda University. April 26, 2006.
- "Eyelid Cancer." Inland Empire Optometry Symposium. Ontario Marriot. March 26, 2006.
- "Painful Clinical Syndromes in Neuro-ophthalmology and Orbital Surgery". Alumni Weekend, APC. Loma Linda University. March 5, 2006.
- ""Oculoplastics." Lecture for Loma Linda University Housestaff. Loma Linda. February 8, 2006
- "Neuro-ophthalmology Update." "Neurosurgery Update." Department of Neurosurgery. Loma Linda University. February 15, 2006.
- ""Oculoplastics for the Plastic Surgeon." Department of Plastic Surgery Grand Rounds. Loma Linda University. February 8, 2006.
- "" "Understanding Blepharospasm." Dystonia Support Group of the Inland Empire. Loma Linda University. February 2, 2006.
- "Hook, Line, and Sinker: Surprising Outcomes in Neuro-ophthalmology and Orbital Surgery." Inland Empire Optometric Society. Ontario, CA. January 11, 2006.
- ""Neuro-ophthalmology and Orbital Surgery." Department of Family Medicine Grand Rounds. Loma Linda University. December 9, 2006.
- "The Double Whammy." Department of Ophthalmology Conference for Optometrists. Loma Linda University. November 6, 2005.
- "Comprehensive Review of Ophthalmology." Loma Linda University School of Medicine. October 28, 2005.
- "Neuro-ophthalmology and Orbital Disease." Department of Neurology Grand Rounds. Loma Linda University School of Medicine. October 26, 2005.
- "Cranial Nerve Palsies." Women in Optometry. Riverside, CA. September 21, 2005.
- "The Wild World of Disc Edema." Inland Empire Optometric Society. Ontario, CA March 20, 2005.
- ""Clinicopathology of Tumors of the Ccular Adnexa." Annual Postgraduate Conference. Loma Linda University Medical Center. March 6, 2005.
- " "Painful Clinical Syndromes in Neuro-ophthalmology and Orbital Disease." Pain Management Symposium. Doheny Eye Institute. February 12, 2005.
- "Benign intracranial hypertension: Is it really benign?" Women in Optometry. Inland Empire Optometric Society. January 18, 2005.
- ""Giant Cell Arteritis." Conference in Ophthalmology for Optometrists. Loma

- Linda University. October 31, 2004.
- "Amniotic Membrane Transplantation." Department of Ophthalmology, Resident Research Day. Loma Linda University Medical Center. June 5, 2004.
- " "Orbital Pseudotumor with Cranial Invasion and Bone Destruction." North American Neuro-ophthalmology Society/Walsh Presentation. March 28, 2004.
- " "Facial Pain Syndromes." Neuro-ophthalmology Symposium. Doheny Eye Institute. February 14, 2004.
- " "Amniotic Membrane Transplant in the Treatment of Fat Adherence Syndrome." Doheny Alumni Conference. June 14, 2003.
- "Canalicular Stenosis in a Patient Treated with Systemic 5-fluorouracil." Doheny Alumni Conference. June 7, 2002.
- "Severe Sebaceous Cell Carcinoma Necessitating Evisceration in a 97 Yearold Male." Doheny Eye Institute Resident Conference. January 2002.
- "Neurotrophic Keratitis." Doheny Alumni and Residents' Conference. June 16, 2001.
- "" "Choroidal Metastasis as Presenting Sign of Systemic Malignancy in a 35 Year-old Male." Doheny Eye Institute Grand Rounds. June 1, 2001.
- "Hypertensive Retinopathy in a 44 Year-old Male." Doheny Eye Institute Grand Rounds. May 18, 2001.
- "Ocular Rosacea in a 42 Year-old Male." Doheny Eye Institute Grand Rounds. April 13, 2001.
- "Ocular Malingering in a 16 Year-old Female." Doheny Eye Institute Grand Rounds. March 9, 2001.
- "Cat-scratch Neuroretinitis in a 53 Year-old Female." Doheny Eye Institute Grand Rounds. February 9, 2001.
- "Neurofibromatosis II in a 23 Year-old Male." Residents' Day Conference. Doheny Eye Institute. January 13, 2001.
- " "Pseudoexfoliation Syndrome." Residents' Day Conference. Doheny Eye Institute. January 13, 2001.
- "Central Retinal Artery Occlusion in a 60 Year-old Male." Doheny Eye Institute Grand Rounds. Novermber 17, 2000.
- "Blebitis Post-trabeculectomy in an 81 Year-old Female." Doheny Eye Institute Grand Rounds. October 13, 2000.
- " "56 Year-old Male with New Onset Diplopia Secondary to Neurocysticercosis." Doheny Eye Institute Grand Rounds. September 1, 2000 "Candida Chorioretinitis in a 35 Year-old Male IV Drug User." Doheny Eye
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- "Anterior Uveitis in a 22 Year-old Female with Crohn's Disease." Doheny Eye Institute Grand Rounds. July 14, 2000.

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- "Tokuhara K, Agarwal MR.A Severe case of adult onset asthma associated orbital xanthogranuloma. Archives of Ophthalmology. Pending
- "Hsu V, Agarwal MR. Ig A associated orbital plasmacytoma. Journal of the Ophthalmic Plastic and Reconstructive Surgery. Pending.
- "Hsu V, Agarwal MR. Squamous cell carcinoma in the anophthalmic socket. Journal of Ophthalmic Plastic and Reconstructive Surgery. Pending publication.
- "Sorenson K, Agarwal MR. Septo-Optic Dysplasia as Failure to Thrive. Journal of Family Medicine, 2007, p. E2-E4.
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# **Book Chapters**

"Sadun AA and Agarwal MR: Topical Diagnoses in Neuro-ophthalmology. In Walsh and Hoyt's Clinical Neuro-Ophthalmology. Sixth Edition. Williams & Wilkins, Baltimore. 2005.

### **Professional Certifications**

- "Board Certified, American Academy of Ophthalmology
- "North American Neuro-ophthalmological Society
- "American Academy of Ophthalmology
- "American Society of Cataract and Refractive Surgery
- " UCLA Association of Chemists and Biochemists

## **Volunteer Experience**

- "Board of Directors, UCLA Medical Alumni Association (1995-1999)
- " UCLA Medical Center Career Conference Planning Committee (1995-1999)
- "Celebration of Sight at Cedars Sinai Medical Center (1998)
- "San Fernando Valley Health Fair- Ophthalmic screening exams (1998)
- "Camp Ronald McDonald for Good Times- Pediatric Oncology (1997-1999)
- "Umma Free Clinic- Downtown Los Angeles (1997-1999)
- "Salvation Army Homeless Clinic (1997-1998)